

Find patterns Search
cover Swiss prot
& PIR

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1 FINDPATTERNS on swp: * allowing 0 mismatches
1 1 (H,R,Y)(S,G,A,T)(D,E)GTx(T,S)(T,S)(D,E)XSKQXEEAVRLX{2}(D,E)XLKNGXSSGAX{3}(S
EXE3_HELHO ck: 9591 len: 39 1 P20394 heloderma horridum horridum (mexican
1 (H,R,Y)(S,G,A,T)(D,E)GTx(T,S)(T,S)(D,E)XSKQXEEAVRLX{2}(D,E)XLKNG
(H)(S)(D)GTx(T,S)(D)XSKQXEEAVRLX{2}(E)XLKNGXSSGAX{3}(S)
1: HSDGFTTSDLSKQMEAEAVRLFIEWLKNGPSSGAPPS
EXE4_HELSU ck: 973 len: 87 1 P26349 heloderma suspectum (gila monster) .
1 (H,R,Y)(S,G,A,T)(D,E)GTx(T,S)(T,S)(D,E)XSKQXEEAVRLX{2}(D,E)XLKNG
48: SKIKR HEGGFTTSDLSKQMEAEAVRLFIEWLKNGPSSGAPPS G
Databases searched:
SWISS-PROT, Release 38.1, Released on 20Nov1999, Formatted on 28Dec1999
SPTREMBL, Release 12.0, Released on 1Nov1999, Formatted on 27Dec1999
Total finds: 2
Total length: 99,198,988
Total sequences: 308,107
CPU time: 13:01.04
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!!AA_SEQUENCE 1.0
ID EXE3_HELHO STANDARD: PRT: 39 AA.
AC P2038947
DT 01-FEB-1991 (Rel. 17, Created)
DT 01-FEB-1991 (Rel. 17, Last sequence update)
DT 01-MAY-1992 (Rel. 22, Last annotation update)
DE EXENDIN-3.
OS Heloderma horridum horridum (Mexican beaded lizard).
OC Squamata; Metazoa; Chordata; Craniata; Vertebrata; Lepidosauria;
SC Squamata; Scleroglossa; Anguimorpha; Helodermatidae; Heloderma.
RN [1]
RP SEQUENCE.
RC TISSUE-VENOM:
RX MEDLINE: 91056067.
RA ENG J., ANDREW P.C., KLEINMAN W.A., SINGH L., RAUFMAN J.-P.;
RT "Purification and structure of exendin-3, a new pancreatic
RL J. Biol. Chem. 265:20259-20262(1990).
CC -1- FUNCTION: HAS A VIP/SECRETIN-LIKE BIOLOGICAL ACTIVITY. INTERACTS
CC WITH THE EXENDIN RECEPTOR.
CC -1- SIMILARITY: BELONGS TO THE GLUCAGON FAMILY.
DR PIR: A23674; HMG32.
DR HSSP: P01274; IGCN.
DR PROSITE: PS00260; GLUCAGON; 1.
DR PFAM: PF00123; hormone2; 1.
KW Glucagon family; Venom; Amidation.
FT MOD_RES 39
SQ SEQUENCE 39 AA; 4204 MW; AB598FD3 CRC32;

EXE3_HELHO Length: 39 March 20, 2000 11:24 Type: P Check: 9591 ..

1 HSDGFTSDL SKOMEAEAVR LFIEWLKNKG PSSGAPPPS

!!AA_SEQUENCE 1.0
ID EXE3_HELHO STANDARD: PRT: 87 AA.
AC P2038947
DT 01-MAY-1992 (Rel. 22, Created)
DT 15-JUL-1998 (Rel. 36, Last sequence update)
DT 15-DEC-1999 (Rel. 39, Last annotation update)
DE EXENDIN-4 PRECURSOR.
OS Heloderma suspectum (Gila monster).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Lepidosauria;
SC Squamata; Scleroglossa; Anguimorpha; Helodermatidae; Heloderma.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97172477.
RA CHEN Y.E., DRUCKER D.J.;
RT "Tissue-specific expression of unique mRNAs that encode proglucagon-
RL J. Biol. Chem. 272:4108-4115(1997).
RN [2]
RP SEQUENCE OF 48-86.
RC TISSUE-VENOM:
RX MEDLINE: 92218391.
RA ENG J., KLEINMAN W.A., SINGH L., SINGH G., RAUFMAN J.-P.;
RT "Isolation and characterization of exendin-4, an exendin-3 analogue,
RL receptor on dispersed acini from guinea pig pancreas.";
J. Biol. Chem. 267:7402-7405(1992).
CC -1- FUNCTION: HAS A VIP/SECRETIN-LIKE BIOLOGICAL ACTIVITY. INTERACTS
CC WITH THE EXENDIN RECEPTOR.
CC -1- SIMILARITY: BELONGS TO THE GLUCAGON FAMILY.
CC -----
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CC -----
CC EMBL: U77613; AAB51130.1;
CC PIR: A42486; HMGH4G.

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DR PROSITE: PS00260; GLUCAGON; 1.
DR PFAM: PF00123; hormone2; 1.
KW Glucagon family; Venom; Amidation; Signal.
FT SIGNAL 1 23
FT PEPTIDE 48 86 POTENTIAL.
FT MOD_RES 86 86 EXENDIN-4.
SQ SEQUENCE 87 AA; 9479 MW; 6C1A8FD5 CRC32;

EXE4_HELHO Length: 87 March 20, 2000 11:24 Type: P Check: 973 ..

1 MKIIIMLCVF GLFLATLFPPI SWQMPVESGL SSEDSASSSS FASKIKRRGE
51 GFTSDLSKO MEEAVRLEFI EWLKNGSPSS GAPPSC

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referred

!!AA-SEQUENCE 1.0
 P:HWGH32 - exendin-3 - Mexican beaded lizard
 C:Species: Heloderma horridum (Mexican beaded lizard)
 C:Date: 31-Mar-1993 #sequence_revision 31-Mar-1993 #text_change 21-Nov-1997
 C:Accession: A23674
 R:Eng, J.; Andrews, P.C.; Kleinman, W.A.; Singh, L.; Raufman, J.P.
 J. Biol. Chem. 265, 20259-20262, 1990
 A:Title: Purification and structure of exendin-3, a new pancreatic secretagogue isolated from Heloderma horridum venom.
 A:Reference number: A23674; MUID:91056067
 A:Accession: A23674
 A:Molecule type: protein
 A:Residues: 1-39 <ENG>
 C:Comment: Exendins are venom components that are thought to bind to receptors for vasoactive intestinal peptide and/or secretin on pancreatic acinar cells and to activate adenylate cyclase, resulting in secretion of amylase.
 C:Superfamily: glucagon
 C:Keywords: amidated carboxyl end; duplication; secretagogue; venom
 F:39/Modified site: amidated carboxyl end (Ser) #status experimental

HWGH32 Length: 39 March 20, 2000 10:52 Type: P Check: 9591 ..

1 HSDGFTSDL SKOMEBAVR LFIEMKNG PSSGAPPS

!!AA-SEQUENCE 1.0
 P:HWGH4G - exendin-4 - Gila monster
 C:Species: Heloderma suspectum (Gila monster)
 C:Date: 31-Mar-1993 #sequence_revision 31-Mar-1993 #text_change 21-Nov-1997
 C:Accession: A42486
 R:Eng, J.; Kleinman, W.A.; Singh, L.; Singh, G.; Raufman, J.P.
 J. Biol. Chem. 267, 7402-7405, 1992
 A:Title: Isolation and characterization of exendin-4, an exendin-3 analogue, from Heloderma suspectum venom. Further evidence for an exendin receptor on dispersed acini from guinea pig pancreas.
 A:Reference number: A42486; MUID:92218391
 A:Accession: A42486
 A:Molecule type: protein
 A:Residues: 1-39 <ENG>
 C:Comment: Exendin-4 does not stimulate amylase secretion by pancreatic acinar cells.
 C:Superfamily: glucagon
 C:Keywords: amidated carboxyl end; duplication; venom
 F:39/Modified site: amidated carboxyl end (Ser) #status experimental

HWGH4G Length: 39 March 20, 2000 10:52 Type: P Check: 9570 ..

1 HEGTFTSDL SKOMEBAVR LFIEMKNG PSSGAPPS

1 FINDPATTERNS on pir:* allowing 0 mismatches

1 1 (H,R,Y)(S,G,A,T)(D,E)GTx(T,S)(T,S)(D,E)XSKQXEEAVRLX(2)(D,E)XLKNGXSSGAX(3)(S

HWGH3Z ck: 9591 len: 39 1 extendin-3 - Mexican beaded lizard

1 (H,R,Y)(S,G,A,T)(D,E)GTx(T,S)(T,S)(D,E)XSKQXEEAVRLX(2)(D,E)XLKNG
 (H)(S)(D)GTx(T)(S)(D)XSKQXEEAVRLX(2)(E)XLKNGXSSGAX(3)(S)
 1: HSDGFTSDLSKQMEEEAVRLFIEWLKNGPSSGAPPS

HWGH4G ck: 9570 len: 39 1 extendin-4 - Gila monster

1 (H,R,Y)(S,G,A,T)(D,E)GTx(T,S)(T,S)(D,E)XSKQXEEAVRLX(2)(D,E)XLKNG
 (H)(G)(E)GTx(T)(S)(D)XSKQXEEAVRLX(2)(E)XLKNGXSSGAX(3)(S)
 1: HGEFTSDLSKQMEEEAVRLFIEWLKNGPSSGAPPS

Databases searched:

NBRF, Release 62.0, Released on 30sep1999, Formatted on 26oct1999

Total finds: 2

Total length: 47,169,319

Total sequences: 142,080

CPU time: 06:16.19